

IN THE DRAWINGS:

Amended drawings Attached.

REMARKS

Claims 1-19 are rejected. Claims 1 and 11 are independent claims. Claims 1-19 are pending in the application.

Reconsideration of all grounds of rejection in the Office Action, and allowance of all of the pending claims are respectfully requested in light of the following remarks.

The specification has been amended to correct to remove a typo. The drawings have been amended to remove typos and correct sentence structure. No new matters have been added.

Claims 1, 9, 11 and 14 stand rejected under 35 U.S.C §102(b) as allegedly anticipated by Seki (U.S.4,790,615), hereinafter “Seki.” Applicant respectfully traverses the above stated rejection.

Claim 1 as amended, now recite a the bidirectional optical communication module, comprising, *inter alia* **a reflective groove disposed at one end surface of the bidirectional optical communication module and coupled to a connection waveguide**. Support for the amendment can be found in the specification and the drawings (Page 7, line 21 to 23 to Page 8, line 1 to 10 and FIG. 3, 4 & 5(249)). Similar features are also recited in amended claim 11.

The present invention discloses a reflector 204, FIG. 3 with a concrete construction whereas a small narrow reflective groove formed in a “precise location” and does not extend through the entire substrate. As can be seen by FIG. 3, 4 and 5, representing an isometric representation of the first and second preferred embodiments; the reflective groove **249** is limited to a small narrow portion of the module, extending from one end surface **217a** of the module to a connection waveguide **243a** or **243b**.

Additionally, a reflective layer is described as being formed on a **base surface** formed in the reflective in claim 1. Therefore, the location of the reflective surface of the reflector is precisely controlled avoiding the possibility that the reflector's reflectivity is lowered due to imprecise location (Page 13, line 14 to 21).

In contrast, Seki discloses a demultiplexing and/or multiplexing optical circuit specific to wavelengthdivision multiplexing optical fiber communication systems. The prior art reference contains three embodiments containing 'filter-fitting grooves': Seki's module in its first embodiment contains two elongated "filter-fitting grooves 30 . . . [30A and 30B] . . . formed to extend **along the entire width of the substrate 10** to be perpendicular to the sides 11 and 12 of the substrate 10." (Columns 3, lines 56 to 58 and FIG 2). In its second embodiment, Seki's module discloses a **single groove 30 runs parallel to the sides 11 and 12** of the substrate 10 (Column 4, line 54 to 55 and FIG. 4). Finally, in its third embodiment, Seki's module contains 3 reflective grooves; 70, 71 and 72 which are configured similar to the first embodiment. (Column 7, line 1 to 4 and FIG. 5). Moreover, a reflective layer is not disclosed in Seki as formed on a base surface of the reflective groove as recited in the base claim 1 and 11. Mere inspection and comparison of the drawings of the prior art reference and the current invention coupled with the specification of the present art demonstrate that the prior art reference and the current invention are not the same.

Accordingly, Seki does not anticipate the present invention because the reflective grooves are structurally different that the grooves disclosed in the present invention. In fact, Seki discloses the exact problem which the present invention solves. Surely Seki's reflectors placed in large and wide reflective grooves suffer from lower reflectivity due

their imprecise location (Page 13, line 14 to 21). Therefore, amended claims 1 and 11 are not anticipated by Seki.

Regarding the Office Action's statement that process of photolithography disclosed in claims 1 and 11 does not impart any structural limitations to the claim that are met by the Seki reference. Applicants respectfully disagree because claims 1 -19 are proper Product-by-Process claims, See. Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 US 141, 158-9, 109 S. Ct. 971, 981-2, (1989) ("As long as the end product of the process is adequately defined and novel and nonobvious, a patent in the process may support a patent in the resulting product." (citing see MPEP 706.03(e) (5th rev. ed. 1986) The Office Action has not met its initial burden of presenting a prima facie case of unpatentability as discussed above because Seki does not anticipate the present invention because Seki's reflective grooves are structurally different that the grooves disclosed in amended claims 1 and 11 in the present invention. See In re Thorpe, et al 227 U.S.P.Q. 964, 966 (Ct App. Fed Cir. 1985) (citing In re Piasecki, 745 F.2d 1468, 1472 (Fed Cir. 1984)

Even if the Office Action had met its burden applicants have provided evidence in the specification that the process of photolithography is more precise than conventional processes . . ." See page 10, line 18 to 22 to page 13, line 13, and FIG. 8 – 10.


On the merits, Applicant respectfully submits that the pending claims, as amended, are patentable for at above reasons. Therefore, reconsideration and withdrawal of this ground for rejection are respectfully requested.

For all the foregoing reasons, it is respectfully submitted that all of the present claims are patentable in view of the cited reference. A Notice of Allowance is respectfully requested.

Should the Examiner deem that there are any issues, which may be best, resolved by telephone communication, please contact Applicant's undersigned Attorney at the number listed below.

Respectfully submitted,

Date: January 5, 2006


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